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October 22, 1992

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

The Secretary  
Federal Communications Commission  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

Dear Sir/Madam:

The attached Memorandum of Ex Parte Discussion is forwarded  
for inclusion in FCC Docket ET 92-100/.

Very truly yours,

FLETCHER, HEALD & HILDRETH

*Leonard Robert Raish*

Leonard Robert Raish  
Counsel for Spectralink  
Corporation

LRR:cej  
Attachment

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MEMORANDUM OF EX PARTE DISCUSSION

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

On October 6, 1992 at 9:30 A.M. Messrs. Tom Ohlsson and L. R. Raish met Dr. Thomas Stanley (FCC Chief Engineer) on behalf of the Spectralink Corporation. The Spectralink Corporation manufactures and sells a pocket telephone system operating in the 902-928 MHz band under Part 15, Section 247 of the FCC Rules.

The purpose of the meeting was to provide Dr. Stanley with an overview of the Spectralink 2000 pocket telephone system. The discussion at the meeting was based on the attached presentation charts. The meeting lasted for approximately twenty minutes.

A copy of this Memorandum along with the attached charts is being forwarded to The Secretary, FCC for inclusion in Docket ET 92-100.

Respectfully submitted,



Leonard Robert Raish  
Counsel for Spectralink

cc: Dr. Thomas Stanley  
Mr. Tom Ohlsson

# **SpectraLink PCS 2000**

## **Wireless PBX Adjunct Technology Overview**

- **Operates under Part 15, Section 247 Rules**
- **902- 928 MHz, frequency hopping spread spectrum**
- **50 channels used, 100 channels / sec. hopping rate**
- **288 kb / sec. data rate for four TDMA speech assignments**
- **TDD used for full duplex operation**
- **GMSK modulation**



## **SpectraLink PCS 2000**

### **Operational Benefits**

- **Operates in available Part 15 bandwidth (902 - 928 MHz)**
- **Frequency hopping spread spectrum transmission**
  - **Minimum likelihood of causing interference**
  - **Minimum susceptibility to interference from ISM users and others (military, AVM)**
- **Very low power (100 mW peak, 10 mW average)**
  - **Allows distributed cellular coverage**
- **Inherently secure operation**
  - **24 Kb / sec. ADPCM voice coding**
  - **FH / SS**
  - **Digital modulation**
  - **Optional encryption**



# **SpectraLink PCS 2000**

## **Product Highlights**

- **First commercial wireless, cellular PBX adjunct operating under Part 15**
- **Part 15 certification granted May 18, 1992**
- **Part 68 certification granted August 7, 1992**
- **18 systems installed to date**
  - **350 base stations**
  - **1000 handsets**
- **Capacity to support large installations**
  - **2000 handsets**
  - **300 + base stations**
  - **More than 4 million sq. ft. coverage**



# **SpectraLink PCS 2000**

## **User-PCS Issues**

- **Operation in 902 - 928 MHz unaffected by outcome of 92-100 & 92-9 Dockets.**
- **Direct Sequence CDMA limited to 26 MHz bandwidth is unreliable in absence of sophisticated signal processing.**
- **Listen Before Talk will likely preclude certain design implementations in 1910-1930 MHz band.**
- **Open entry to entire 1910-1930 MHz band will allow timely product availability, but will result in significant interference potential.**



# **SpectraLink PCS 2000**

## **User-PCS Issues**

- **Segregating voice and data users to different portions of the spectrum minimizes complexity of implementing LBT.**
- **5 MHz will not deliver primary phone support.**
- **Estimated that 15-20 MHz dedicated spectrum is necessary for primary phone support.**

MIN

 **SpectraLink**

# **SpectraLink PCS 2000**

## **User Benefits**

- **Improve productivity**
- **Reduce operating expenses**
- **Reduce telecommunications expenses**
- **Improve responsiveness**
- **Improve image**





# **SpectraLink PCS 2000 Applications**

- **Distribution Centers**
- **Facility support**
- **Hospitals**
- **Disaster planning**
- **Office environment**
- **Temporary agency set up**
- **Service and support centers**

